Environmental Sustainability

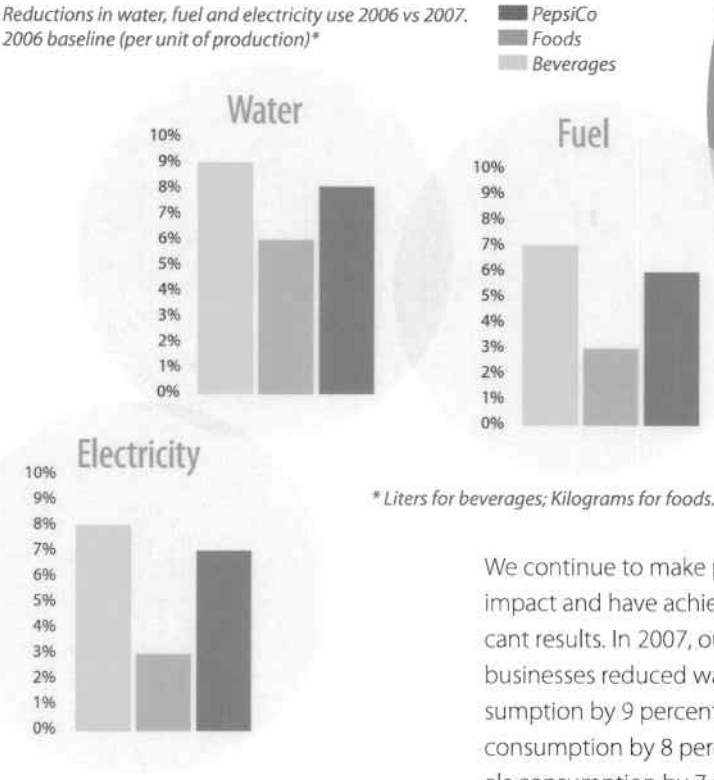
Our Goal

At PepsiCo, we are committed to minimizing the impact our business has on the environment with methods that are socially responsible, scientifically based and economically sound. Foundationally, we expect compliance with environmental laws and regulations. In places where, in our judgment, the requirements are not stringent enough, we will apply a higher standard to drive environmental protection. We will audit our performance against these expectations to assure we are doing right. After more than a decade of action, we continue our energy efficiency, water conservation and responsible packaging innovation initiatives and take accomplishments that are pioneered in one part of our business to scale throughout our global network.

We continuously improve our environmental programs and explore inventive solutions to the world's challenges. We operate in a way that minimizes our environmental footprint with the goal of reaching a net-neutral impact. We've focused our environmental sustainability efforts on water, energy and packaging — areas where we can make the biggest impact. And we're extending our outreach to our franchised bottlers and our supply chain, including our agricultural partners.

Resource Conservation Improvements 2006 vs 2007

*Reductions in water, fuel and electricity use 2006 vs 2007. 2006 baseline (per unit of production)**



PepsiCo established uniform protocols for energy and water measurement and reporting in 2005 and rolled them out for use across all divisions for the first time in 2006. Prior to this, Frito-Lay North America (FLNA) had been collecting data since 1999. Quaker/ Tropicana/ Gatorade began data collection in 2004. PepsiCo International has now collected one full year of data.

This is the first time year-over-year comparisons are available for PepsiCo as a whole. The data collected represents PepsiCo-owned manufacturing sites with 100 percent of usage at FLNA and Quaker/Tropicana/Gatorade and 90 percent at PepsiCo International.

** Liters for beverages; Kilograms for foods.*

In 2007, PepsiCo agreed on rigorous, corporation-wide global metrics to help us better track and understand our environmental footprint. Our goal is to reduce water consumption by 20 percent, reduce electricity consumption 20 percent, and reduce fuel consumption by 25 percent per unit of production by 2015 as compared to our 2006 consumption.

We continue to make positive impact and have achieved significant results. In 2007, our beverage businesses reduced water consumption by 9 percent, electricity consumption by 8 percent and fuels consumption by 7 percent. Our foods businesses reduced water consumption by 6 percent, electricity consumption by 3 percent and fuels consumption by 3 percent.

We have environmental scientists and technical experts who are knowledgeable of leading edge scientific research and discoveries so we can leverage our operational capabilities to help make a difference.

We have in place a global eco-efficiency strategy for resource conservation (RECON) within our operations that helps us optimize our water, energy and electricity use through improved methods and technologies. We extend this strategy to our bottlers and co-packers through workshops around the world.

We have formed a series of partnerships with key external stakeholders to provide us with additional insights, expertise and knowledge on multiple aspects of sustainability. We will continue to actively lead and engage in key private-public partnerships to spur action and solutions to address the urgency of the world's environmental issues.

Water

Water is essential for all foods — for growing, washing, processing and cooking. It is the primary ingredient in our beverages. Reducing the amount of water we use is imperative and we're committed to minimizing our water footprint through greater efficiency across our operations. Where we source our water is just as critical since sourcing from stressed areas causes damage to local communities and ecosystems.

Throughout our business, we work to reduce our water footprint and help avoid water conflicts with local communities. At the same time, we are engaged in improving access to clean water around the world through alliances with non-profit groups.

Conserving Water in Our Operations

In 2007, we conserved nearly 5 billion liters of water across our operations as compared to 2006 through technological improvements in our global manufacturing operations and resource conservation programs.

In the United Kingdom, our total water use across all our operations was 1,564 million liters in 2007. Between 2001 and 2007, we reduced the water used to manufacture Walkers Crisps by 42 percent from 13 l/kg of production to 7.6 l/kg. This was achieved through a comprehensive analysis of all water usage and improved measurement systems.

The Walkers team developed engineering solutions to reduce equipment water use and increase opportunities for recycled water use.

In Mexico, all of our Sabritas manufacturing facilities have secondary process water treatment systems, which will allow us to extend water recycling to more activities while eliminating the impact of waste water on the environment.

Frito-Lay, the U.S. snack division of PepsiCo, continued to improve its water efficiency by conserving more than 300 million gallons (1 billion liters) of water in 2007 as compared to 2006 through its continued water conservation efforts known as the "Gallon per Pound Challenge." Frito-Lay won recognition from the Environmental Protection Agency as a Water Efficiency Leader in 2007.

Gatorade Employees as Change Agents

Many water efficiency solutions implemented across our global operations today were first identified by the conservation team at our Gatorade facility in Atlanta, GA in response to the August 2007 drought, one of the worst in centuries. Those solutions alone helped the Atlanta plant conserve nearly 290 million liters of water in 2007 and have led to system-wide water savings. Since 2004, Gatorade has reduced water usage by 17 percent across its entire manufacturing system through implementing best practices across facilities. Gatorade employees on the manufacturing line have acted as change agents by helping plants conserve millions of liters of water. Through employee-led "tag and flag" programs, water savings efficiencies such as leaks on production lines are immediately addressed.

Gatorade is continuing to implement innovative technologies throughout its plants, including:

> Using dry lube, a process that replaces soapy water with silicone to lubricate bottle lines

> Reclaiming and recycling steam vapor from heating processes

> Cleaning empty bottles through "air-rinsing," a process that uses ionized air instead of water

Pepsi-Cola bottlers in North America are also doing their part to conserve water resources. Pepsi Bottling Group has installed water recovery systems on reverse osmosis filters that conserve more than 1 billion liters of water annually as compared to traditional designs.

Water conservation is especially important in water stressed areas. In 2003, our India team embarked on an ambitious journey to achieve positive water balance by 2009 through a comprehensive program to conserve and optimize water usage, both in our own manufacturing processes and in the communities we serve.

We have carried out a variety of innovative reuse and recycling initiatives. In the last five years in India, we have reduced our water use in manufacturing by more than 55 percent. We have also prevented depletion of ground water aquifers by constructing rainwater harvesting systems in most of our plants. We've supplemented this by introducing community water projects in farms and comprehensive watershed management programs in diverse and challenging geographic locations. Similar projects are underway in China, Thailand and Mexico.

Reducing Water Use in Agriculture

While using water responsibly throughout our business is a top priority, we also believe in our ability to address the broader problem of water scarcity. In India, for example, where agriculture accounts for over 80 percent of total fresh water consumption, PepsiCo is working with farmers to reduce water intensity in paddy cultivation by around 30 percent through direct seeding, a technique that avoids the traditional flood irrigation method currently practiced by paddy growers across the country. Paddy is India's largest grain crop, and consumes the bulk of fresh water used in Indian agriculture. In 2007, PepsiCo piloted this program on 100 acres, and it was scaled up to cover 1,000 acres in 2008. The significant impact of this change can be gauged from the fact that if only 6,000 acres of paddy cultivation were shifted to direct seeding it would offset the entire water used in PepsiCo India's beverage plants.

Partnering for Change

PepsiCo Chairman and CEO Indra Nooyi publicly demonstrated PepsiCo's commitment to helping address the global water crisis by joining other partners as a signatory to the United Nations CEO Water Mandate. By signing the CEO Water Mandate, PepsiCo has committed to adhere to a holistic approach to water management in six areas: direct operations, supply chain and watershed management, collective action, public policy, community engagement and transparency.

The Earth Institute and the PepsiCo Foundation are working together to address water challenges in India, China, Mali and Brazil. By harnessing good business practices with cutting-edge science in climate prediction, remote sensing, hydrology, and agronomy, our project together will help to develop new business models for sustainable water use.

Jeffrey Sachs
Director, Earth Institute at Columbia University

Leaving a Positive Footprint on Society

The PepsiCo Foundation's mission around the environment is to advance knowledge and methods of water resource management that are sustainable and positively impact both quantity and quality of water supply. The Foundation has committed more than $16 million to organizations working to bring safe water to developing countries.

China Women's Development Foundation: The PepsiCo Foundation partnered with the China Women's Development Foundation (CWDF) to implement a research, development and intervention program designed to expand availability of safe drinking water for the people of Western and Central China. The grant is designed to provide safe drinking water using a watershed management solutions approach to expand CWDF's repertoire of rainwater harvesting techniques. Ultimately it will help communities obtain water and teach them to improve the safety of their water through treatment.

The Earth Institute: In 2008, The Earth Institute at Columbia University, one of the world's premier institutions dedicated to global sustainable development, and the PepsiCo Foundation, entered into a $6 million three-year partnership. The program includes a series of high-impact, community-based activities and practical solutions across water, agriculture and climate.

WaterPartners: The PepsiCo Foundation made a $4.1 million grant to WaterPartners to provide safe drinking water and sanitation to communities of the greatest need in India. This grant was the biggest single contribution to WaterPartner's WaterCredit Initiative, an innovative program that uses microfinance to increase access to safe water and improve sanitation for local communities in India.

Safe Water Network: Through a three-year partnership with Safe Water Network, the PepsiCo Foundation has pledged $3.5 million to implement safe water initiatives for village water systems in Ghana, India, and Bangladesh, as well as rainwater harvesting systems in India.

Energy

Climate change may adversely affect the raw materials and other supplies we use, including water and agricultural products. In 2007, we successfully reduced our use of fuels and electricity and continued work to transform our business model, including identifying opportunities to reduce energy use in our operations, use renewable energy, construct green buildings and work with suppliers to reduce their energy use.

Reducing Our Energy Use

We have set comprehensive electric and thermal energy reduction goals across our businesses to ensure that the energy intensity of our operations is continuously reduced. During 2007, our beverage businesses reduced electricity consumption by 8 percent and fuels consumption by 7 percent per unit of product. Our foods businesses reduced electricity consumption by 3 percent and fuels consumption by 3 percent.

In the United Kingdom and Ireland, we reduced the amount of energy used per pack of Walkers Crisps production by 32 percent between 2000 and 2007.

We have also focused on the energy efficiency of our vehicle fleet. For example, Sabritas, our Mexican snack food business, has 13,000 distribution vehicles, about 6,000 of which were converted over the past ten years to burn liquid propane gas. This has reduced carbon and nitrogen emissions and generated fuel savings of between 15 and 22 percent (depending on geographic conditions and fuel costs).

In the U.K. and Ireland, we improved our fleet fuel efficiency by 12 percent between 2001 and 2006. In 2007, we reduced our absolute distribution footprint by 4.3 percent despite shipping 10.3 percent more products. This was achieved by investing in vehicle technology, such as putting lower friction tires on our vehicles, streamlining the vehicles to reduce wind resistance, implementing new journey-planning software, and conducting a comprehensive training program for our drivers. These improvements were combined with in-cab systems that tracked fuel efficiency on a weekly basis.

PepsiCo's commitment to saving energy through green building worldwide continued in 2007. Our new facilities constructed in 2007 were designed to meet the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) standards — one of the most rigorous standards for "green building" in the world. The USGBC awarded the prestigious LEED Gold certification to two of our facilities: Gatorade's Wytheville, Virginia manufacturing facility and Gatorade's Tolleson, Arizona distribution center. At the time, the Wytheville facility was the largest LEED-Gold certified food and beverage manufacturing site in the world.

In May 2008, PepsiCo introduced the Sustainable Engineering Guidelines based on LEED standards. The guidelines support our environmental sustainability commitments throughout our engineering pro-

cess, and apply to all new construction as well as major remodels of existing buildings globally. The Sustainable Engineering Guidelines can be accessed through a website available to all PepsiCo engineers and key partners worldwide.

Harnessing Renewable Energy

Across PepsiCo, we are evolving to the use of more renewable energy in our operations with several initiatives at our manufacturing plants.

In India, we launched our first remote wind turbine, harnessing one of the most efficient, clean and renewable sources of energy. This turbine is connected to the public electricity grid with sufficient power to meet more than 75 percent of the electricity needs of our Mamandur plant.

Our Tropicana juice manufacturing plant in Ft. Pierce, Florida continued its progress toward greenhouse gas neutrality by using carbon-neutral landfill gas for a portion of its operations. In 2007, approximately 10 percent of the facility's thermal energy demands were derived from this renewable source.

Our Frito-Lay plant in Modesto, California unveiled a solar concentrator field designed to drive the production of truly "solar powered" SunChips multigrain snacks. The 5-acre solar concentrator field includes 54,000 square feet of curved mirrors designed to absorb sunlight. The solar energy captured by the 192 solar collectors produces steam that generates nearly three quarters of the heat used in the SunChips manufacturing process at the Modesto plant.

In 2007, we announced plans for our first-ever "net zero" plant in Casa Grande, Arizona. With plans to run almost entirely on renewable fuels and recycled water, retrofits to this existing Frito-Lay facility are scheduled to be completed by 2011.

We are also proud of our purchase of over 1.1 billion kilowatt-hours of Green-e© certified Renewable Energy Certificates (RECs) annually to equal 100 percent of purchased electricity used by all U.S. facilities. The U.S. Environmental Protection Agency estimates the PepsiCo purchase is the same amount of electricity needed to power nearly 90,000 American homes annually.

Partnering for Change

We continue to develop external partnerships focused on strategies to reduce greenhouse gas emissions. In 2007, PepsiCo joined the U.S. Environmental Protection Agency's Climate Leaders, a voluntary partnership program that works to develop comprehensive climate change strategies, including supporting reduction in greenhouse gases. We are the first consumer products company to join with other concerned companies and non-governmental organizations in the U.S. Climate Action Partnership to encourage the federal government to enact climate legislation.

2007 GHG Emissions Intensity

	Greenhouse Gas Emissions (GHG)/Kg or L Production*
Snack	0.529
Beverage	0.080

**Per unit of production. Represents 95 percent of company-owned manufacturing facilities. Non-manufacturing facilities not included.*

Packaging and Solid Waste

We distribute our products in a variety of packages, each carefully designed to deliver convenience and appeal to our consumers while protecting the integrity of our products. Our team of engineers and packaging suppliers are dedicated to finding preferable designs, and are working continuously towards improving our packaging performance while reducing our packaging environmental footprint.

Our goal is to design and develop packaging systems that are environmentally responsible throughout their entire lifecycle and partner with leading organizations to promote sustainable packaging and recycling practices. We have launched a global sustainable packaging policy and formed a Sustainable Packaging Council, led by our Procurement and Packaging R&D organization, to develop a roadmap that will guide us toward this goal.

Activating Sustainable Packaging Programs

We follow five principles of sustainable packaging design:

Reduce: using less material in our packaging, to conserve natural resources

Reuse: increasing use of reusable packaging and increasing the amount of recycled material in our packaging

Recycle: designing packaging for recycling and developing biodegradable and compostable packaging solutions

Remove: eliminating environmentally sensitive materials and processes from our packaging

Renew: increasing use of renewable material resources

Reducing and Recycling Our Waste

At Frito-Lay, route sales employees return empty cartons from stores to our plants for reuse or recycling and delivery boxes are used an average of six to seven times — this conserves nearly 5 million trees a year and keeps more than 25 million kilograms of cardboard away from landfills. For Frito-Lay's North American and International products, Frito-Lay recycles packaging film waste from our suppliers' sites for use in other products such as park benches.

The average Pepsi bottle contains 10 percent recycled plastic — that's more than any other soft drink brand in the United States.

Using Less Material in Our Packaging

Although beverage containers are the most recycled consumer packaging in the United States, and they are designed for recycling, we continue to look for ways to reduce the amount of packaging used for our products. And we are achieving success. PepsiCo scientists and packaging specialists have led the way in reducing packaging materials through cost-effective changes in design and production, known in the industry as "light-weighting." Light-weighting reduces the amount of raw materials and energy used to make our packages and generates less waste after our products are enjoyed.

In 2008, we introduced a new, half-liter bottle for our Aquafina flavored waters, Lipton Iced Teas, and Tropicana juice drinks. The new bottle contains 20 percent less plastic than the previous bottle and its label is 10 percent smaller than before. These innovations are taking nearly 6 million kilograms of packaging out of the system each year and reducing greenhouse gas emissions by 18,000 metric tonnes annually. That's equivalent to taking 3,350 cars off the road for a year.

We've trimmed the amount of plastic used in the bottles, caps and labels of our most popular Aquafina bottle — the half-liter (16.9 oz.) bottle — by 35 percent since 2002. This saves more than 27 million kilograms of plastic a year and reduces greenhouse emissions by 78,000 metric tonnes annually. That's equivalent to taking 14 thousand cars off the road for a year.

We're also removing environmentally sensitive materials from the waste stream. For example, Quaker Standard Oatmeal has eliminated the PVC band on the 18 oz. tube and replaced it with biodegradable material, eliminating more than 87,000 kilograms of PVC a year.

KEEP AMERICA BEAUTIFUL INC.

GREAT AMERICAN CLEANUP™

Partnering for Change

Keep America Beautiful, Inc. (KAB) is the largest non-profit community improvement organization in the United States. Pepsi is a longtime, national sponsor of KAB's annual Great American Cleanup. For the past three years, Pepsi has brought together Sam's Club, KAB and the Aquafina water brand in a national, school-based recycling program. The program collected more than 70 million plastic bottles for recycling in 2007.

Across all our U.S. divisions, initiatives conducted in 2007 to reduce packaging have resulted in more than 9 million kilograms of material reduction across PET bottles and corrugated materials.

Quaker Standard Oatmeal has eliminated the PVC band on the 18 oz. tube and replaced it with biodegradable material, eliminating more than 87,000 kilograms of PVC a year.

Supply Chain

Extending Resource Conservation

Working with our supplier community on specific initiatives, PepsiCo is able to grow and extend our effective resource conservation programs. We're also focused on setting quantifiable goals for energy, greenhouse gases (GHG), water, agriculture and forestry resource conservation within the extended supply chain.

Some examples of our Supplier Outreach program in action include:

Our U.K. and Ireland business is one of 12 charter members of the Carbon Disclosure Project's Supply Chain Leadership Collaboration (SCLC). This group aims to dramatically increase to the thousands the number of its member-suppliers reporting on climate change mitigation efforts and adaptation strategies. Our membership demonstrates to our suppliers how important we feel climate change is to business decision-making along with our desire to work collaboratively.

We've joined other companies and Greenpeace in a global initiative called "Refrigerants, Naturally!" Its goal is to address climate change and ozone layer depletion caused by gases in refrigeration equipment by working with our suppliers to improve the environmental performance of our coolers and marketing equipment. More than 99 percent of our new purchases of refrigerated point-of-sale equipment in the United States use HFC-free insulation.

Engaging Suppliers: Environmental Sustainability

Citrosuco is a leading supplier of not-from-concentrate orange juice to Tropicana. It is a family-owned company with a Brazilian orange business founded more than 40 years ago. More than 20 percent of its plantation area is set aside as nature reserves. Another equivalent area is populated with palm trees and other vegetation — retaining rain water and providing natural wildlife habitats.

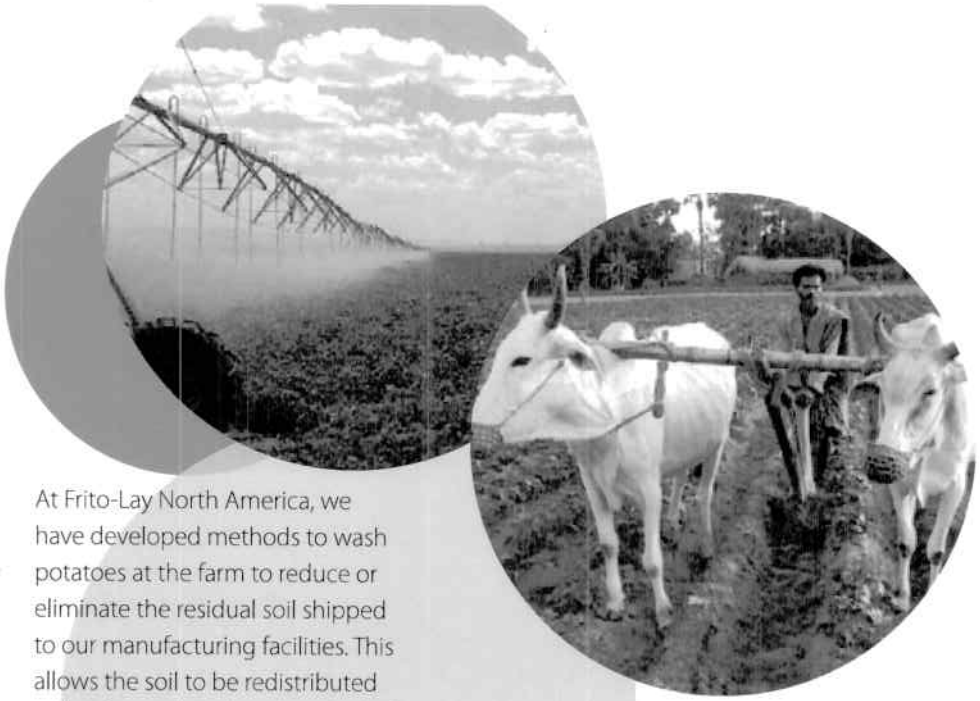
The reserve areas exceed the Brazilian environment agencies' required legal limit. Citrosuco is rolling out new environmental systems on its orange farms, leading to higher efficiencies in pesticide and fertilizer use by, for example, analyzing the optimum time of day and weather conditions for applying, which allows them to use less. The company's juicing facilities are powered by biomass (sugar cane fiber) and use no fossil fuels. Nutrients such as nitrogen are extracted, composted, and reused to naturally fertilize nearby farms.

Citrosuco's truck fleet is currently being upgraded with larger trucks fitted to existing trailers, which can carry 30 percent more juice with the same number of trips, reducing fuel use. The efficiency of Citrosuco's ships has been improved by utilizing deck space to transport specialty goods, such as large wind-turbine blades and generators.

Instituting Our Global Sustainable Agriculture Policy

We're currently formalizing our Global Sustainable Agriculture Policy, which demonstrates our thoughtful approach to working across the agricultural supply chain. We continuously benchmark against our industry peers to understand best practices and approaches to sustainable agriculture, including water saving techniques, waste reuse, soil protection and chemical use.

PepsiCo has initiated a Sustainable Water and Nutrition Management program. This program enables sustainable, environmentally responsible water management of our potato crops by monitoring irrigation methods. Countries involved in the project include the United Kingdom, United States, Mexico, Australia, Egypt, China, Portugal, Republic of South Africa, Pakistan and Turkey.



At Frito-Lay North America, we have developed methods to wash potatoes at the farm to reduce or eliminate the residual soil shipped to our manufacturing facilities. This allows the soil to be redistributed at the farm rather than disposed of through plant waste water discharge and also reduces diesel fuel requirements.

Quaker North America has been a leader for decades in the oat industry, developing new oat varieties that deliver increased field yields and improved disease resistance. Improving field performance through new oat varieties reduces fertilizers, fungicide and herbicide use. Improved oat varieties generate more oats per acre — reducing the time, energy and resources required per crop.

In Mexico, our Sabritas Agro Team has activated "Campo Limpio," an outreach initiative to educate farmers about sustainable agricultural practices in production fields. The goal is to help farmers reduce chemical and microbiological agents in fields and in raw materials. We aim to further increase the commitment of our growers to the safe handling of our raw materials, in particular corn and potatoes, through a training and certificate program that focuses on good agricultural practices.